

# V&V Reference Report

## L2 ASCDS Version : 8.4.3

Observation 11325 - L2 Version 2  
Chandra X-Ray Center

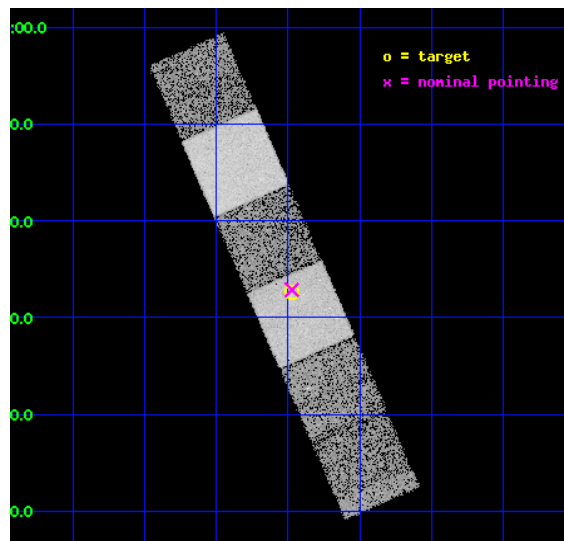
L2 Processing Date : Feb 2 2012

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# 1 Front

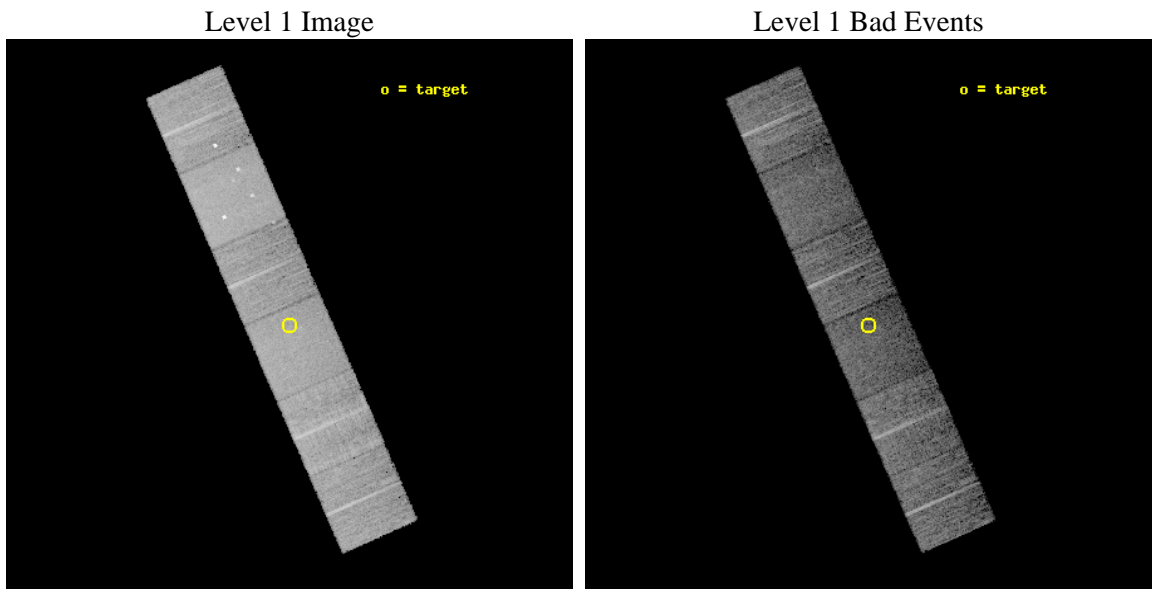
seq_num	600844	Sequence number
obs_id	11325	Observation id
title	Accretion onto nuclear black holes in early type galaxies: comparing field vs. clusters	Proposal title
observer	Elena Gallo	Principal investigator
object	SDSSJ145828.64+013234.6	Source name
dtcycle	0	&#160
cycle	P	events from which exps? Prim/Second/Both
ra_targ	224.619	Observer's specified target RA [deg]
dec_targ	1.54303	Observer's specified target Dec [deg]
ra_nom	224.61831424052	Nominal RA [deg]
dec_nom	1.5478717542329	Nominal Dec [deg]
roll_nom	66.351915216272	Nominal Roll [deg]
revision	2	Processing version of data
ontime	8444.7999686003	Sum of GTIs [s]
livetime	8337.8668265498	Livetime [s]
ontime4	8444.7999686003	Sum of GTIs [s]
ontime5	8444.7999686003	Sum of GTIs [s]
ontime6	8444.7999686003	Sum of GTIs [s]
ontime7	8444.7999686003	Sum of GTIs [s]
ontime8	8444.7999686003	Sum of GTIs [s]
ontime9	8444.7999686003	Sum of GTIs [s]
l2events	101167	Number of level 2 events



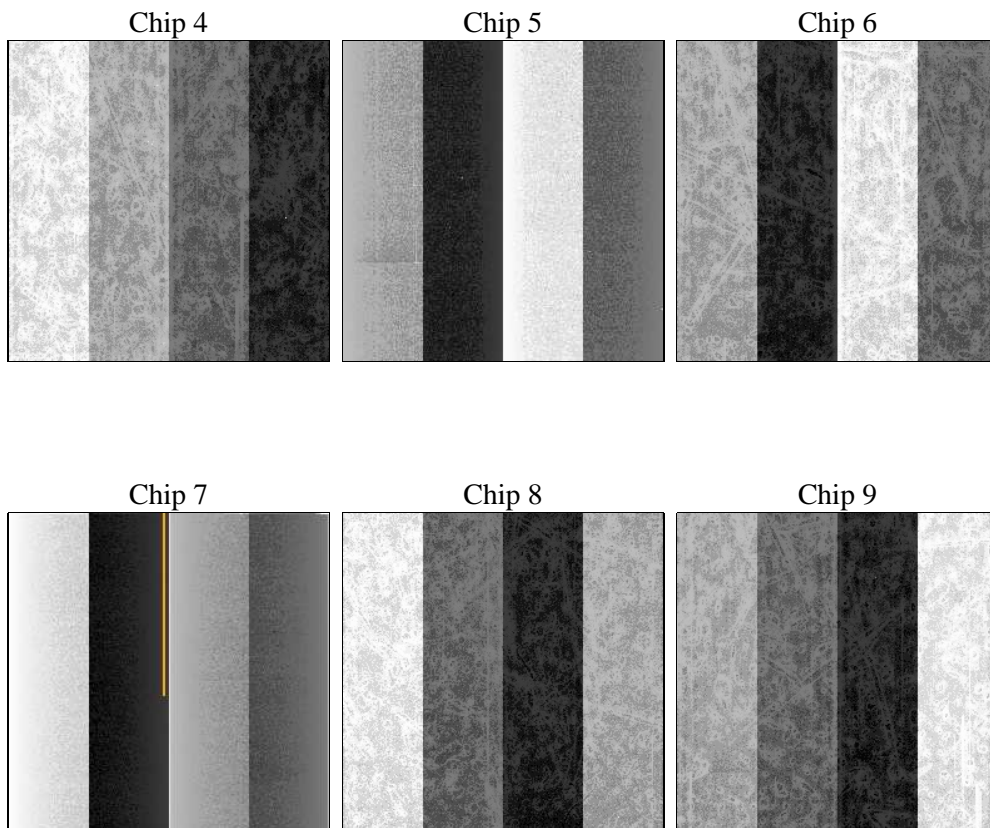
## 2 OBI

### 2.1 OBI

#### 2.1.1 Images



#### 2.1.2 Bias



### 2.1.3 Parameters

obi_num	0	Obi number	sched_exp_time	8400.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	8444.7999686003	Sum of GTIs [s]
caldbver	4.4.7	&#160	ontime4	8444.7999686003	Sum of GTIs [s]
date	2012-02-02T03:23:30	Date and time of file creation	ontime5	8444.7999686003	Sum of GTIs [s]
revision	2	Processing version of data	ontime6	8444.7999686003	Sum of GTIs [s]
			ontime7	8444.7999686003	Sum of GTIs [s]
			ontime8	8444.7999686003	Sum of GTIs [s]
			ontime9	8444.7999686003	Sum of GTIs [s]
			l1events	441460	Number of level 1 events

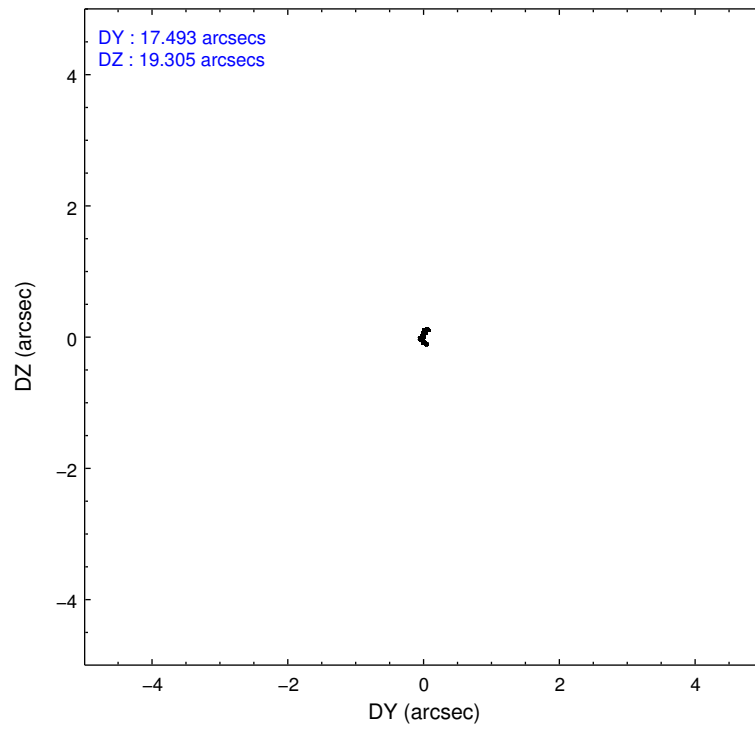
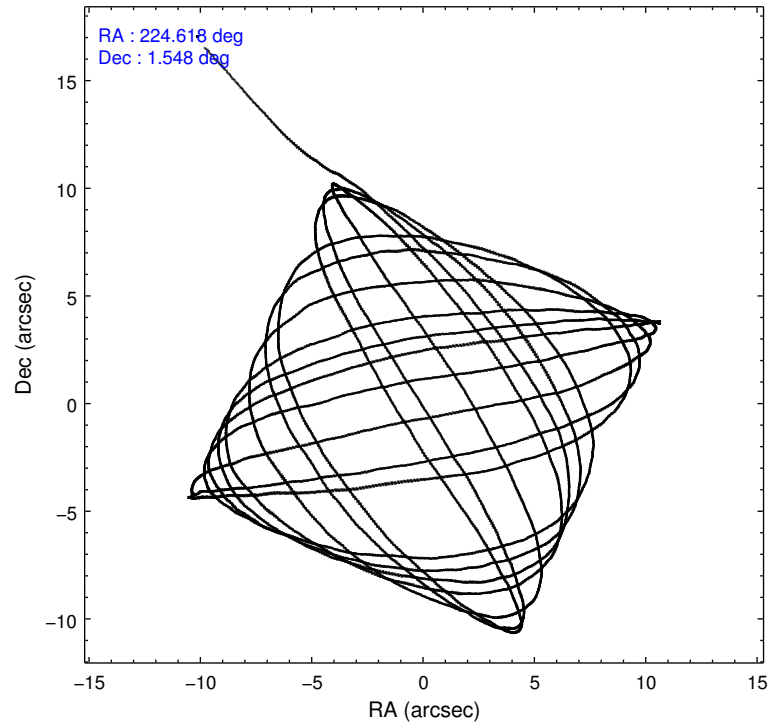
### 2.1.4 Events

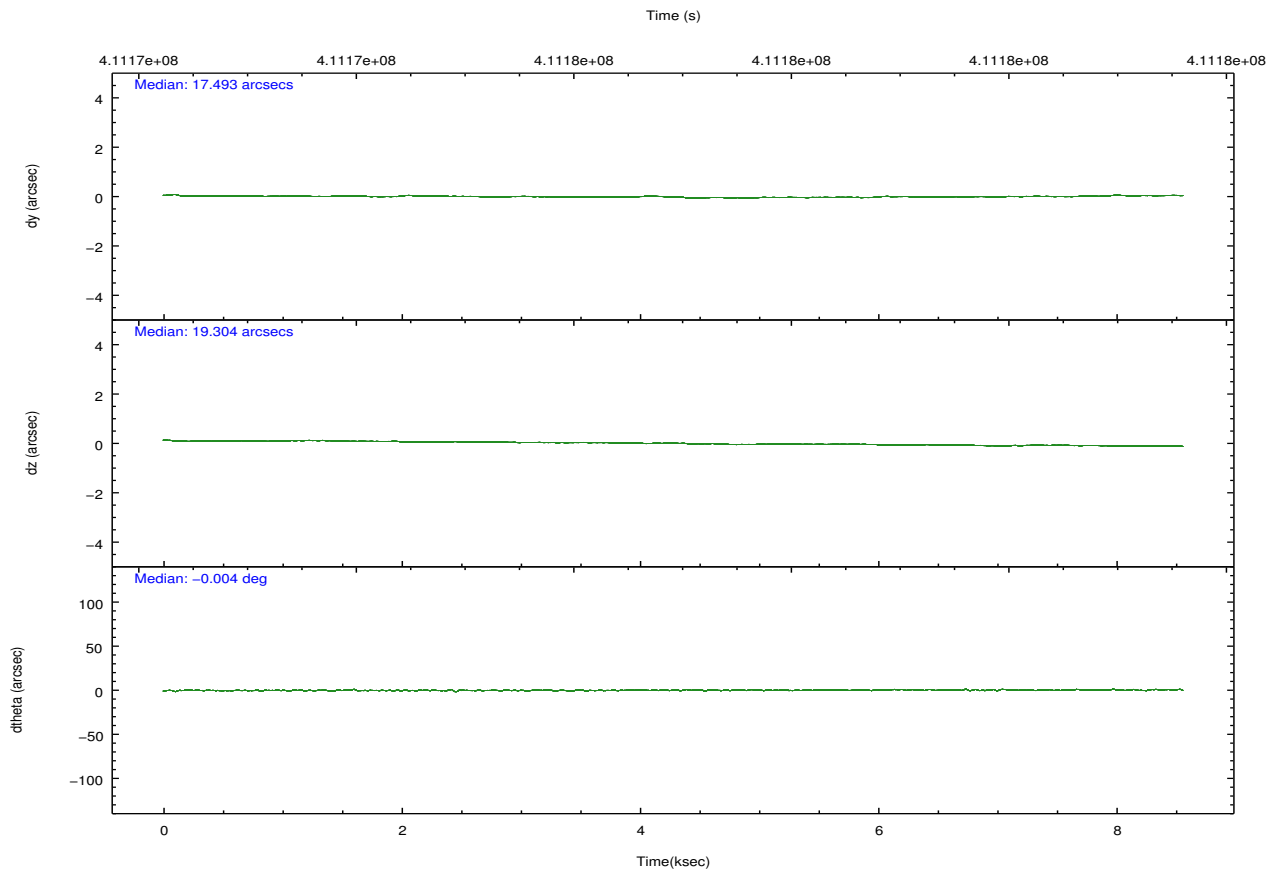
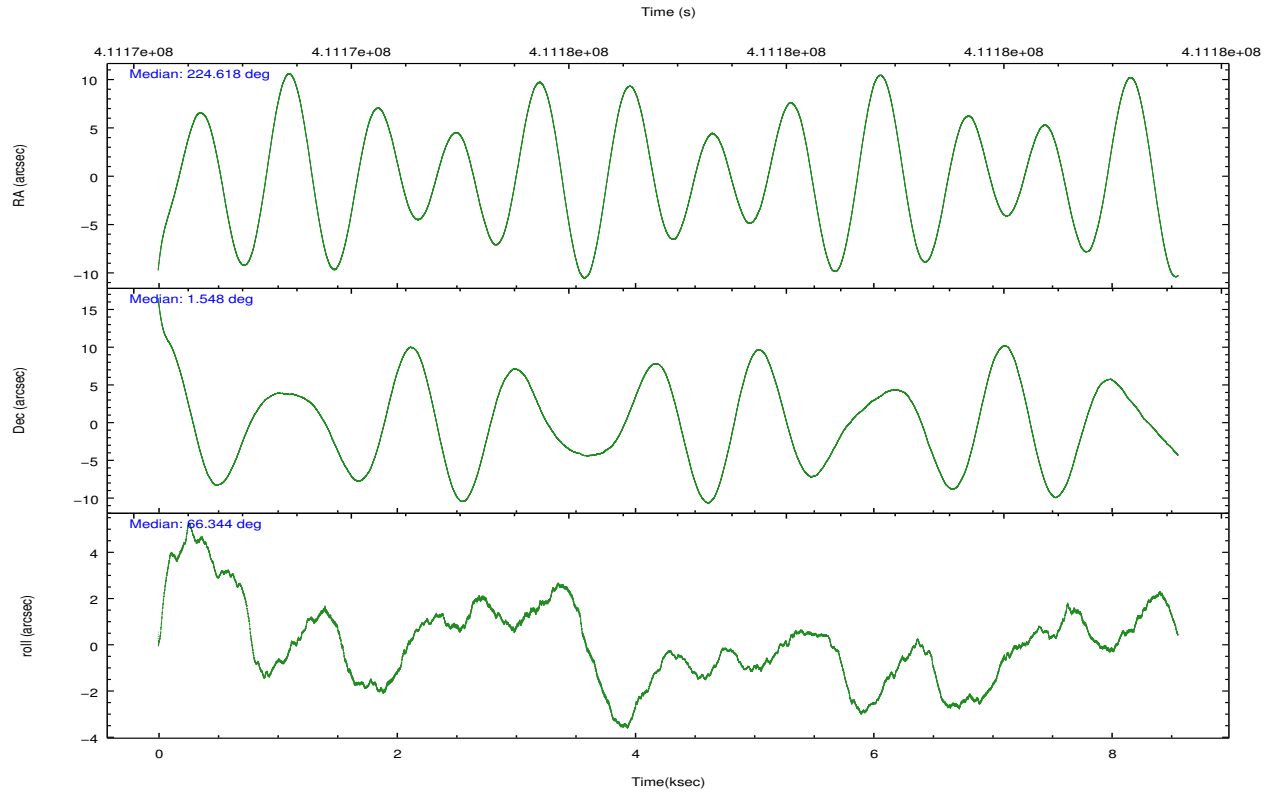
	ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9		ccd 4	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	72852	94581	58298	75064	78877	61788	grade 0 events	5035	5862	2497	3168	6380	2670
rejected events	63323	46856	51337	41310	58430	54705		6%	6%	4%	4%	8%	4%
rejected %	86%	49%	88%	55%	74%	88%	grade 1 events	77	201	25	103	77	42
								0%	0%	0%	0%	0%	0%
							grade 2 events	1740	14395	1555	6889	4785	1491
								2%	15%	2%	9%	6%	2%
							grade 3 events	751	1761	728	2939	2037	761
								1%	1%	1%	3%	2%	1%
							grade 4 events	771	1735	697	3001	2010	719
								1%	1%	1%	3%	2%	1%
							grade 5 events	2721	6947	2763	7765	4110	3098
								3%	7%	4%	10%	5%	5%
							grade 6 events	1236	23986	1486	17773	5237	1445
								1%	25%	2%	23%	6%	2%
							grade 7 events	60521	39694	48547	33426	54241	51562
								83%	41%	83%	44%	68%	83%

## 2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-456789	ACIS-456789	Obspar file type	PREDICTED	ACTUAL
Grating	NONE	NONE	Obspar update status	NONE	UPDATED
Data mode	VFAINT	VFAINT	CCD I0 on	N	N
Observation mode	POINTING	POINTING	CCD I1 on	N	N
[deg] Pointing RA	224.621716	224.6183142405163	CCD I2 on	N	N
[deg] Pointing Dec	1.520695	1.547871754232905	CCD I3 on	N	N
[deg] Pointing Roll	66.195203	66.35191521627223	CCD S0 on	O1	Y
[mm] SIM focus pos	-0.684267	-0.6828225247311905	CCD S1 on	Y	Y
[mm] SIM defocus	0	0.001444936568705701	CCD S2 on	Y	Y
[mm] SIM translation stage pos	-190.132523	-190.1425803651734	CCD S3 on	Y	Y
[mm] SIM translation stage offset	0	0.01005778216563158	CCD S4 on	Y	Y
[s] Observation start time (MET)	411172792.184000	411171709.89638	CCD S5 on	O2	Y
Observation start date	2011-01-11T22:38:46	2011-01-11T22:21:49	Number of optional ACIS chips dropped	0	0
[s] Observation end time (MET)	411181192.184000	411181326.44688	On-chip summing requested	N	N
Observation end date	2011-01-12T00:58:46	2011-01-12T01:02:06	Subarray requested	NONE	NONE
Read mode	TIMED	TIMED	Alternating exposures requested	N	N
			[s] Primary exposure time	0.000000	3.2

## 2.3 Aspect



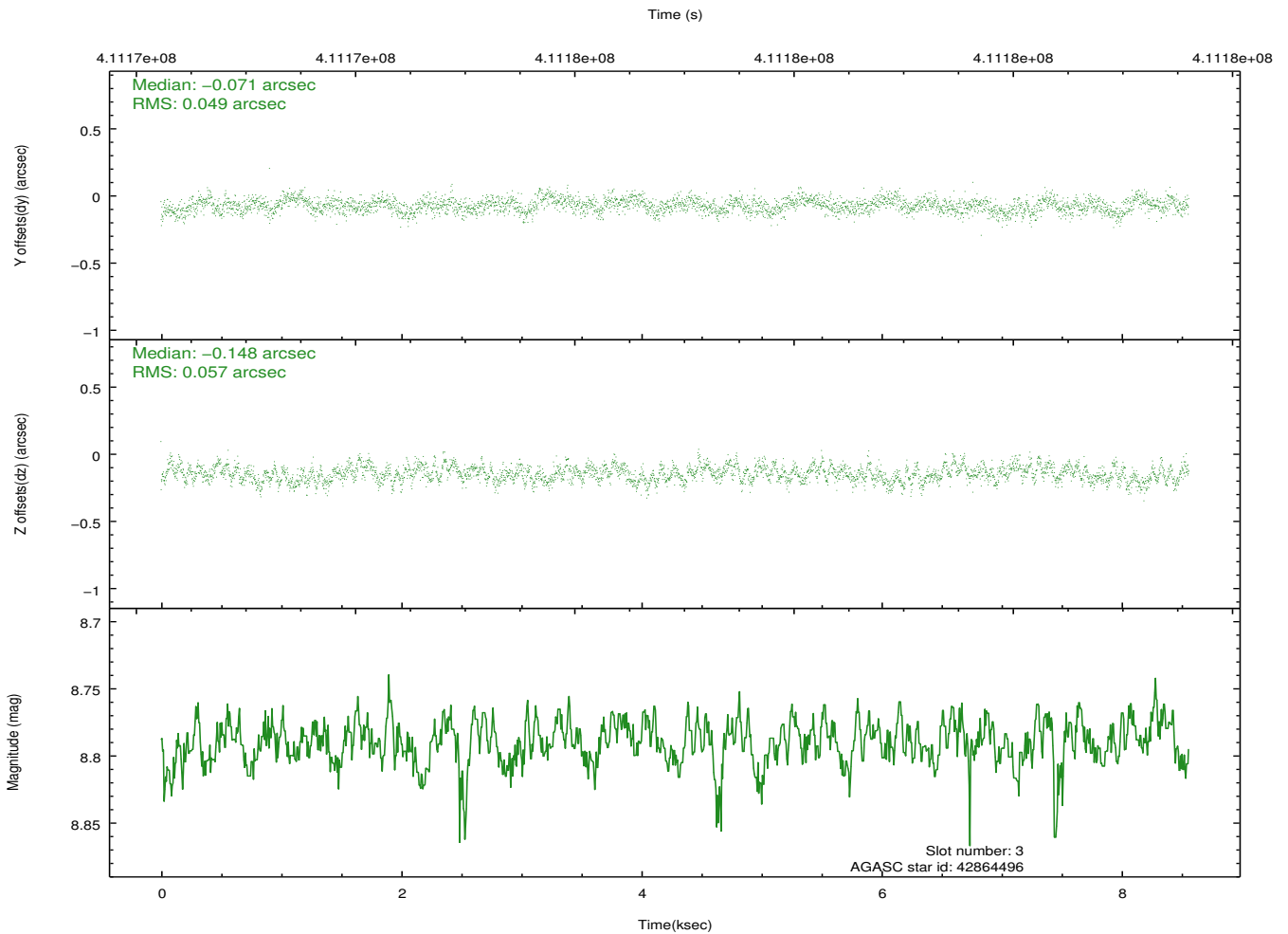
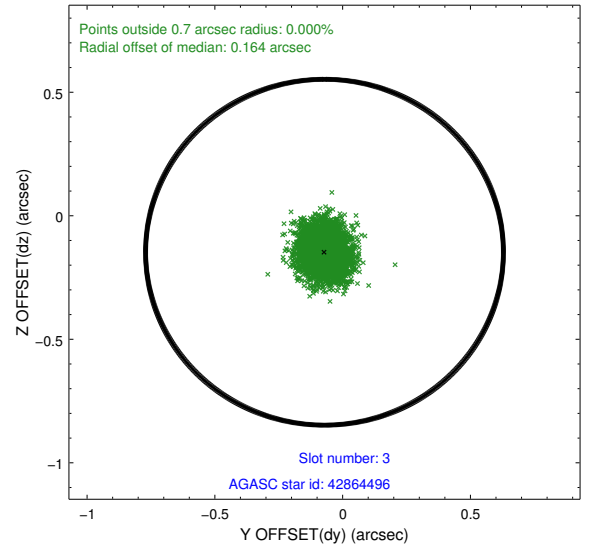
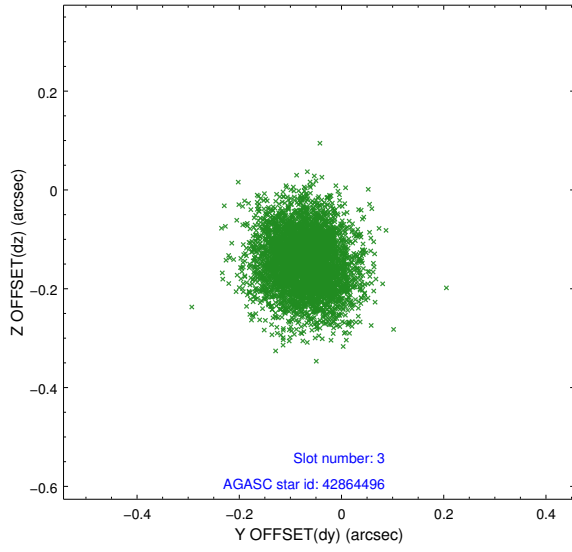


### Slot Statistics

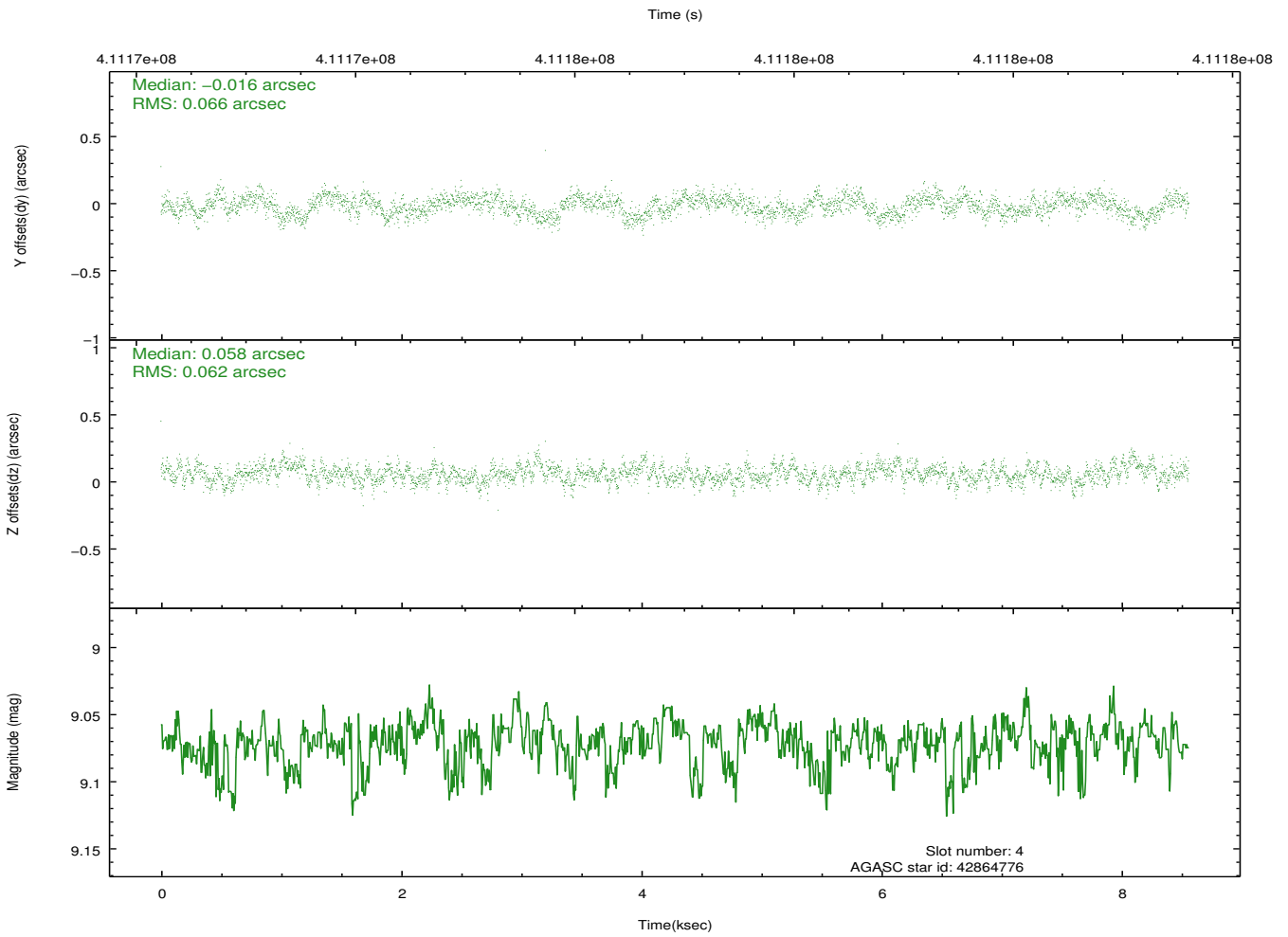
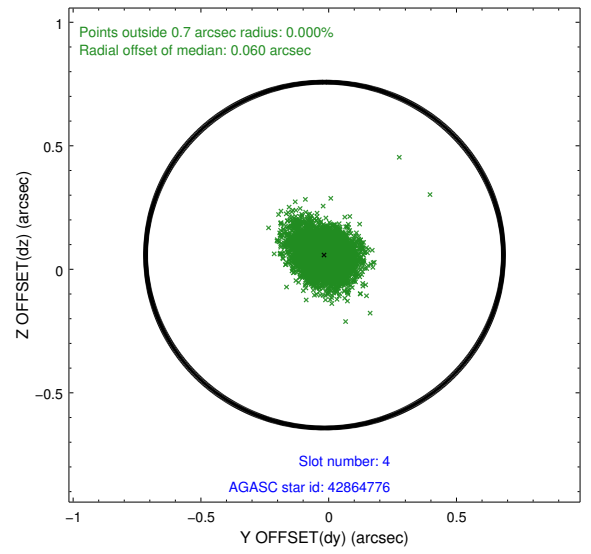
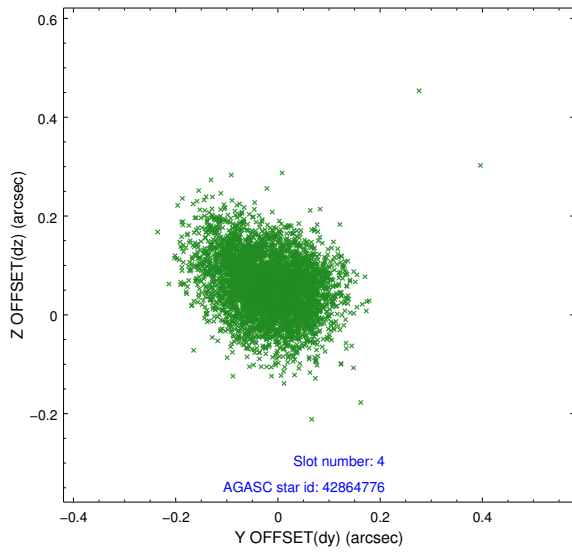
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-2	6.89	2088	-0.083	-0.036	0.007	0.012	0.000000	0.000000	-770.62	-1740.78
1	FID	ACIS-S-4	6.97	2088	0.189	0.050	0.006	0.012	0.000000	0.000000	2142.64	167.10
2	FID	ACIS-S-5	7.00	2088	-0.137	-0.005	0.007	0.012	0.000000	0.000000	-1822.68	161.47
3	GUIDE	42864496	8.79	4175	-0.071	-0.148	0.080	0.130	224.530171	1.653443	304.08	494.01
4	GUIDE	42864776	9.07	4174	-0.016	0.058	0.096	0.156	224.993302	1.618488	861.14	-1080.90
5	GUIDE	42865496	9.40	4171	0.021	-0.133	0.113	0.184	223.838708	1.328182	-1771.06	2298.35
6	GUIDE	42869600	9.43	4150	0.201	0.240	0.158	0.230	224.875445	1.123032	-941.02	-1412.56
7	GUIDE	43782432	8.08	4176	-0.130	-0.015	0.080	0.133	225.298629	1.853875	2080.97	-1744.11

## 2.4 Star Slots

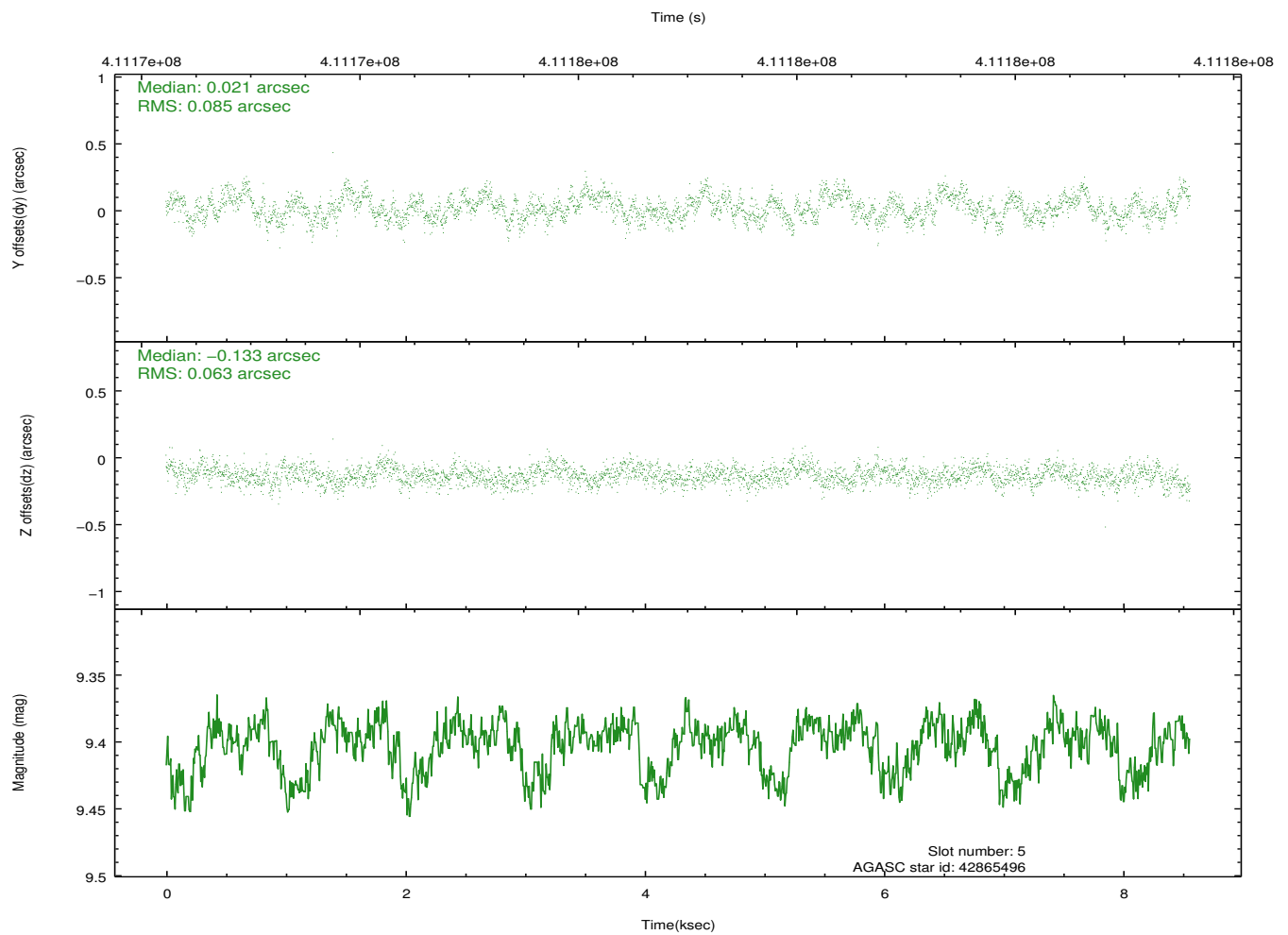
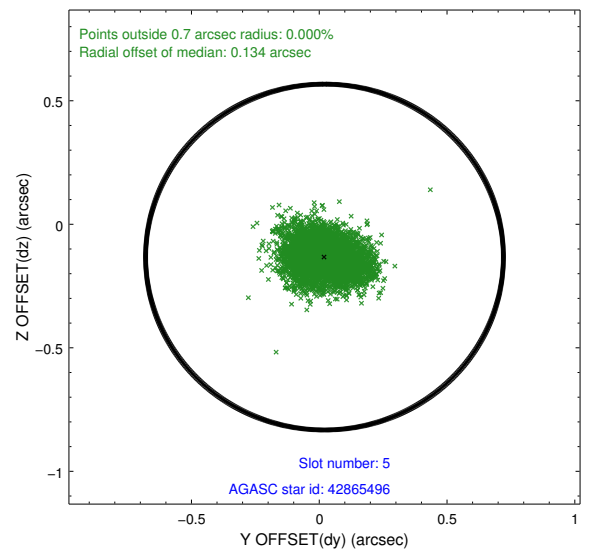
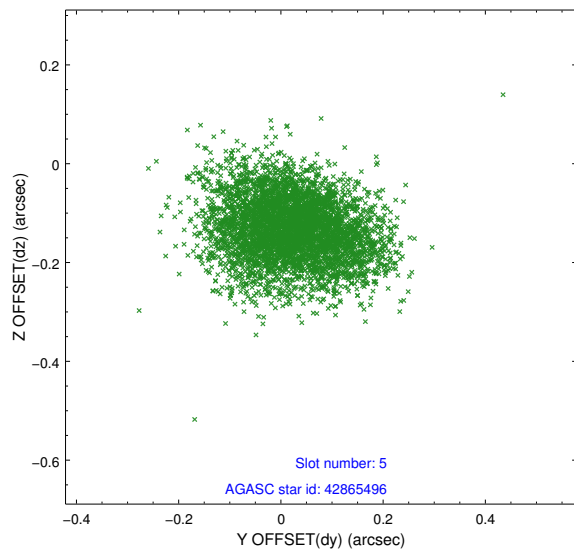
### 2.4.1 Slot 3



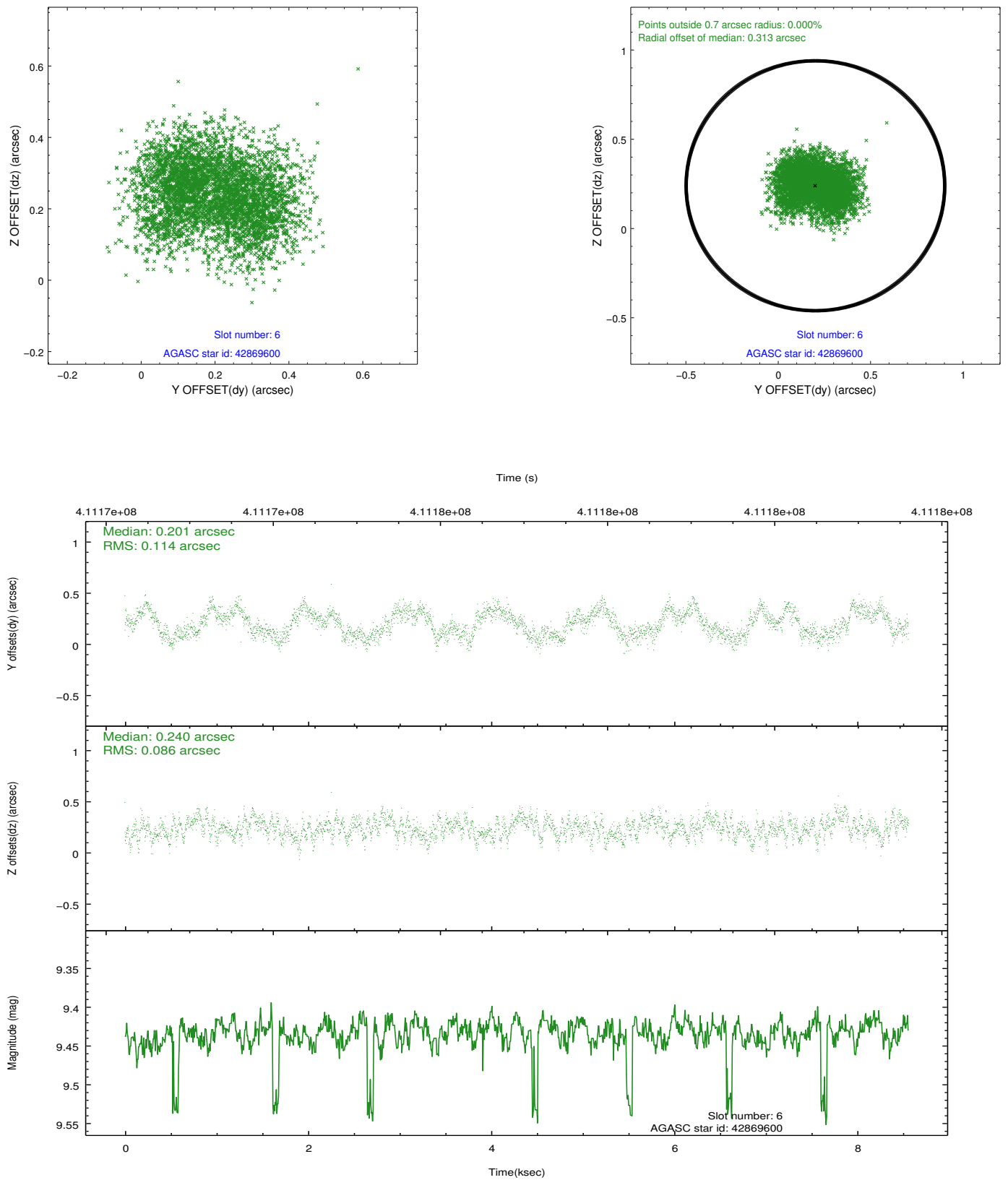
## 2.4.2 Slot 4



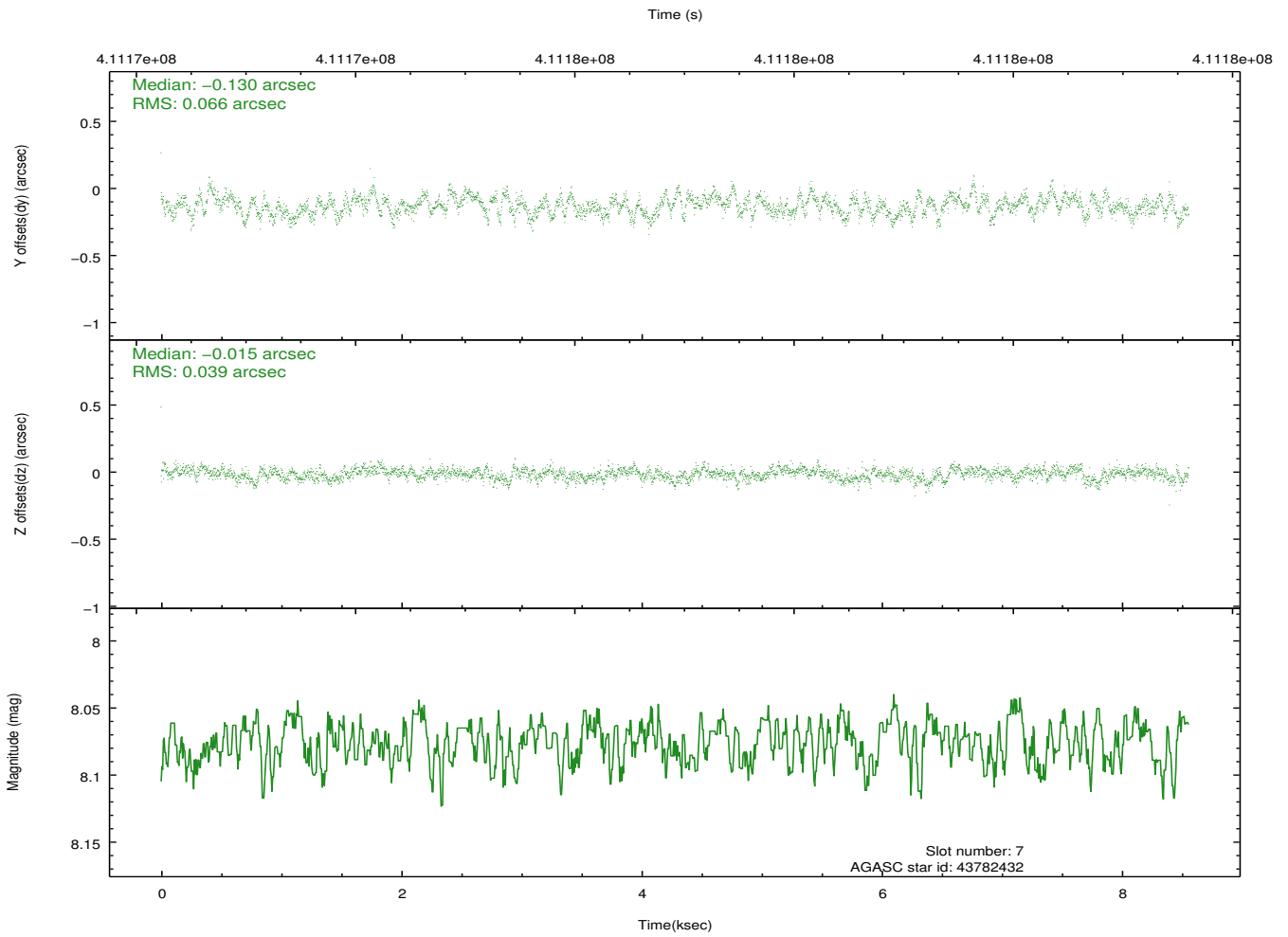
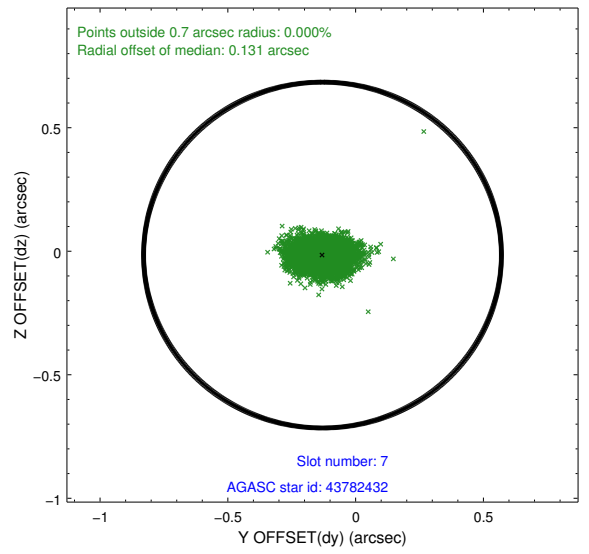
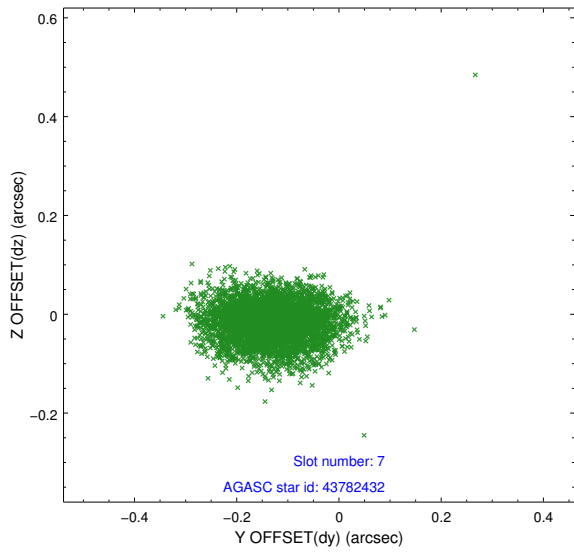
### 2.4.3 Slot 5



## 2.4.4 Slot 6

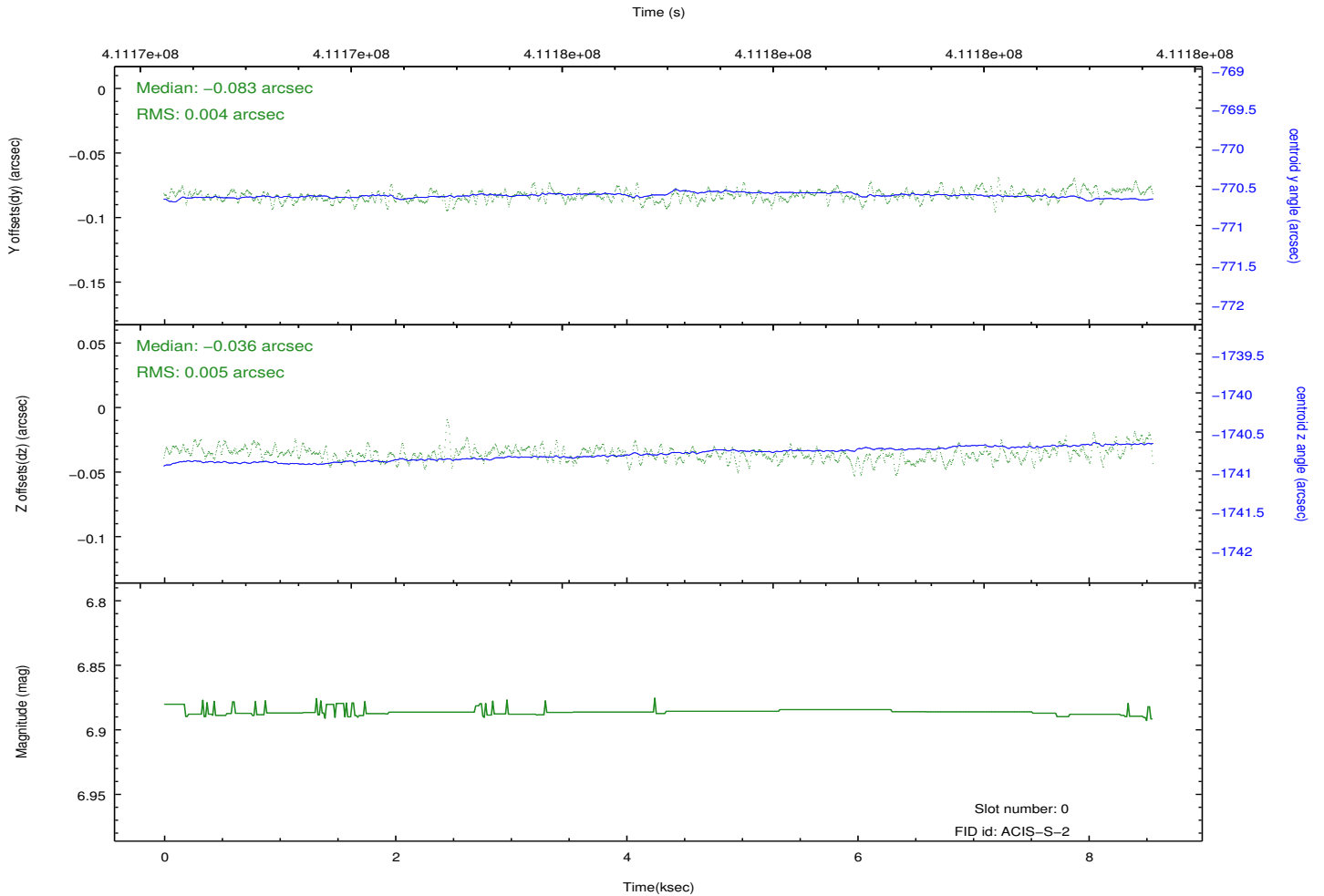
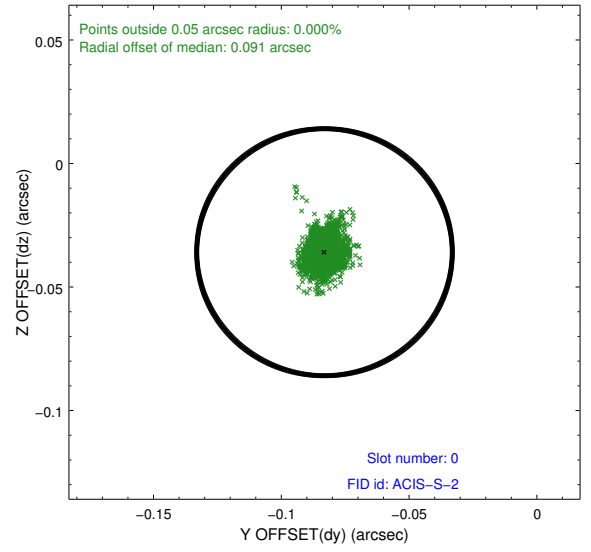
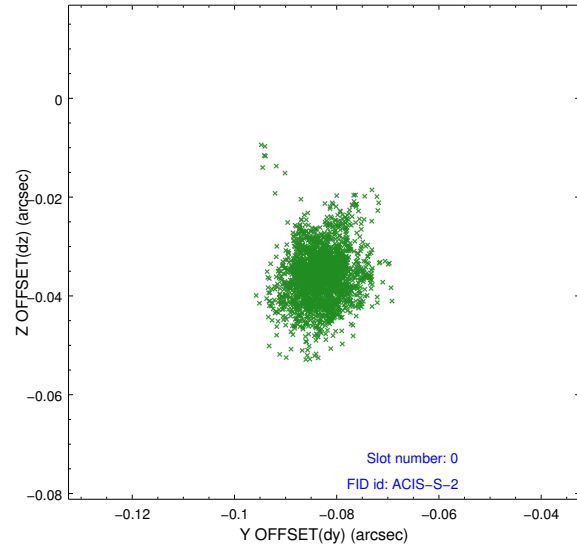


### 2.4.5 Slot 7

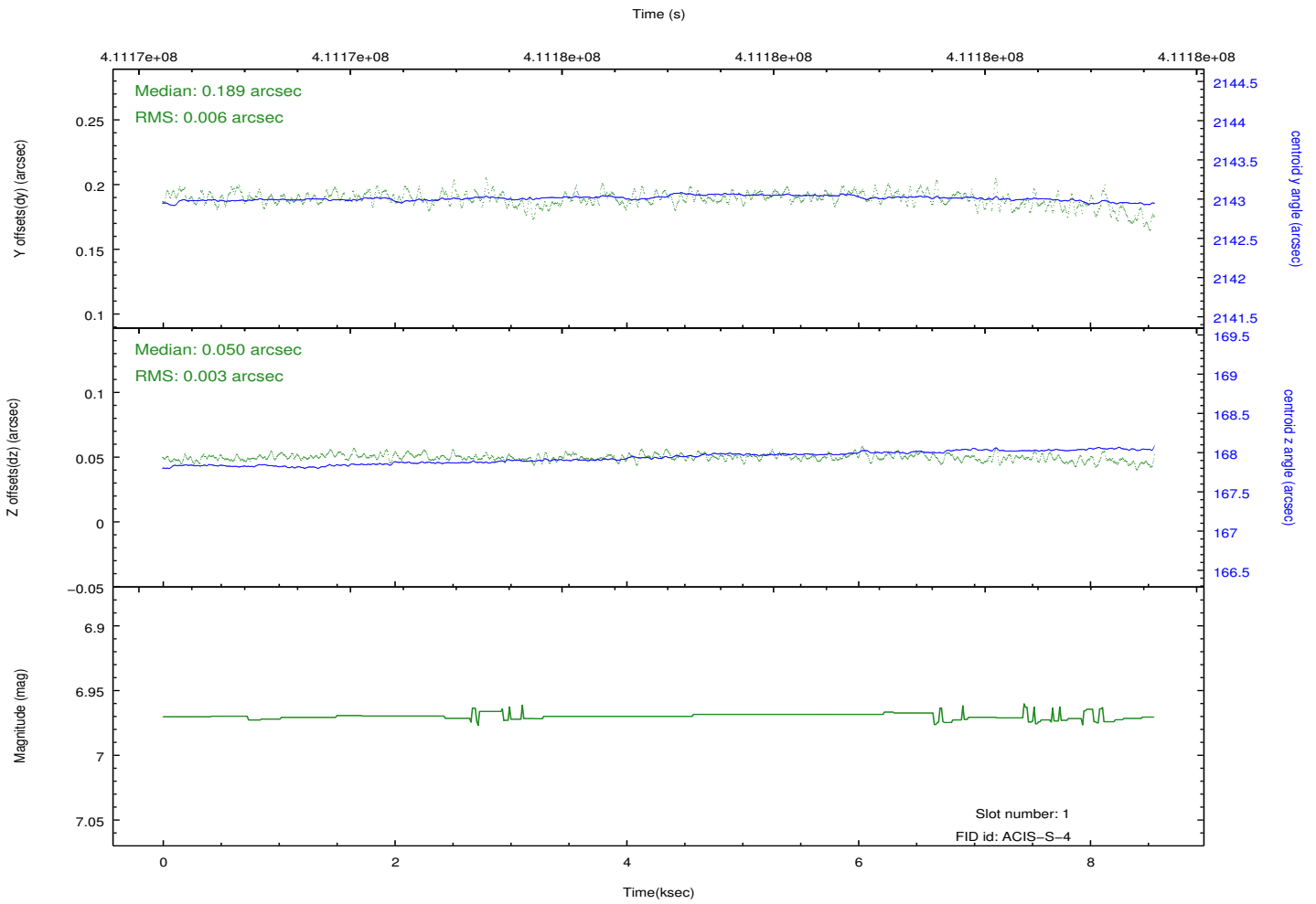
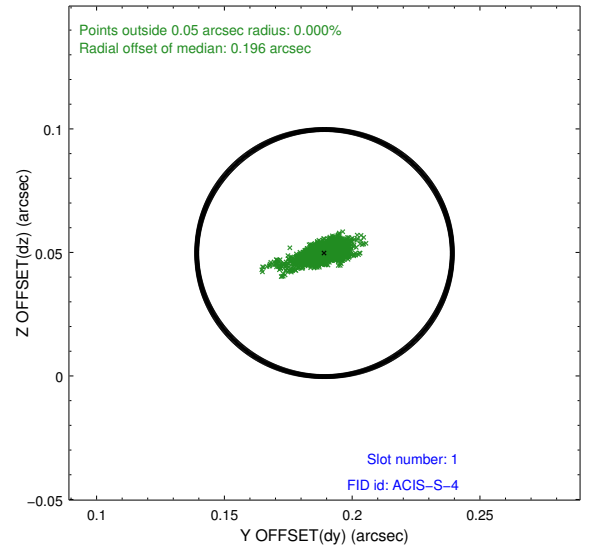
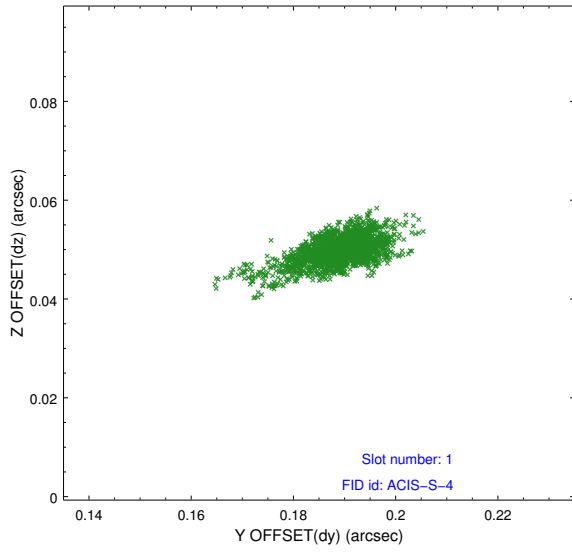


## 2.5 FID Slots

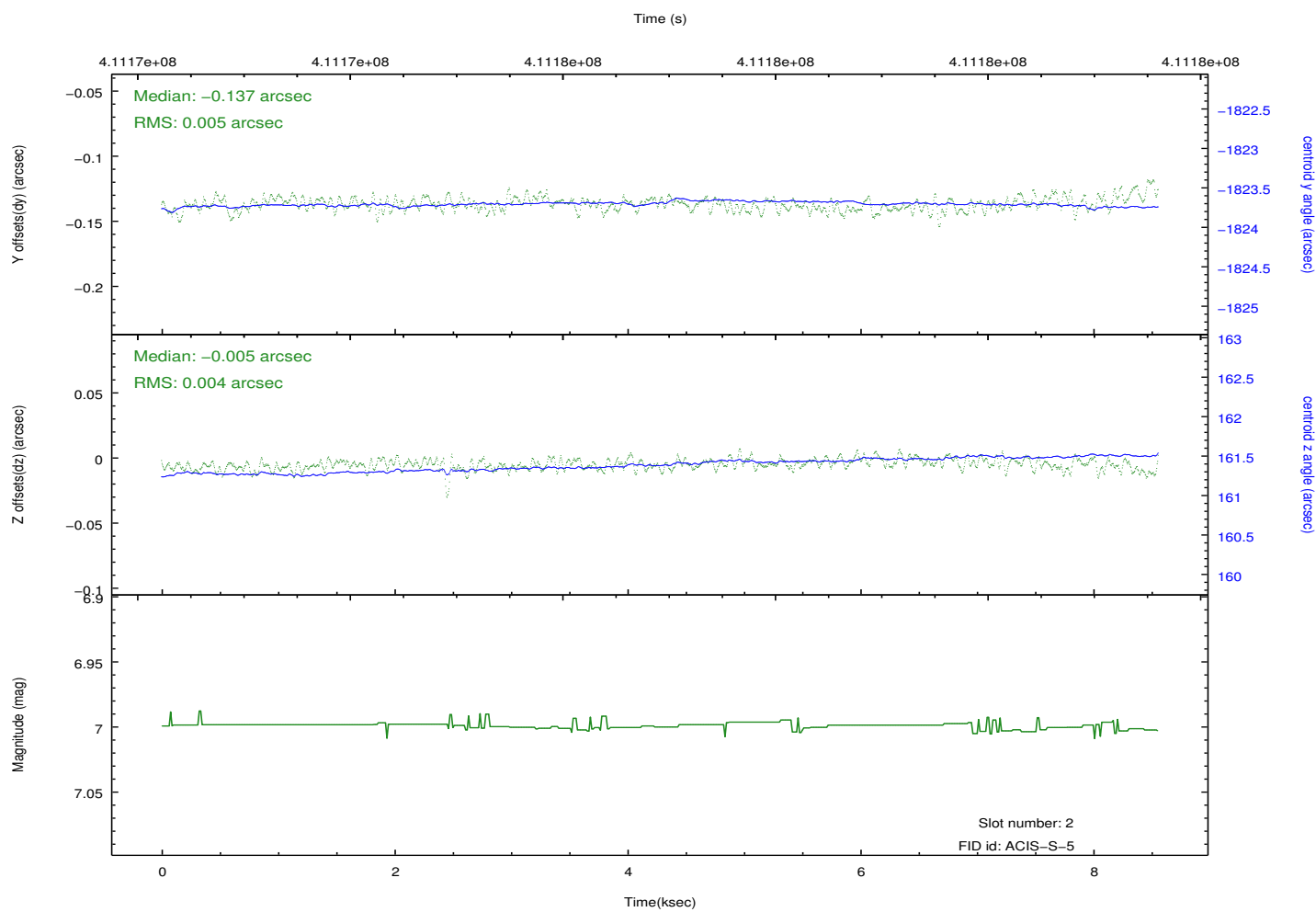
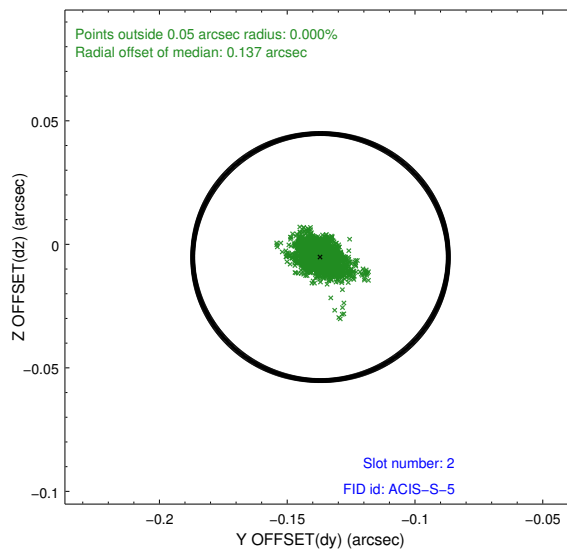
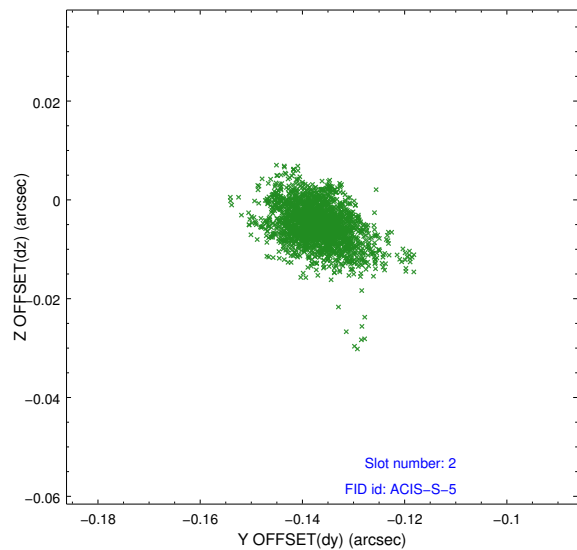
### 2.5.1 Slot 0



## 2.5.2 Slot 1



### 2.5.3 Slot 2



# A Summary

## A.1 Status

V&V Scientist	Mike Nowak
V&V Date (YYYY-MM-DD)	2012.02.02
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	8.4447999686003

## A.2 Comments

The data for this observation have been processed using the 'EDSER' sub-pixel event-repositioning algorithm of Li et al. (2004, ApJ, 610, 1204). Small-scale features should become sharper for sources near the aim point. The improvement will be less noticeable for off-axis sources where the size of the point-spread function is comparable to or larger than the size of an ACIS pixel. To take full advantage of the improvement, images should be binned on spatial scales smaller than the size of an ACIS pixel. Note that, at present, the point-spread function has not been calibrated for data to which the EDSER algorithm has been applied. If dither was disabled for the observation, then the algorithm can introduce artificial aliasing effects on spatial scales smaller than a pixel. If you would prefer to use no sub-pixel adjustment or to apply a coordinate randomization, then use `acis_process_events` to reprocess the data with the parameter `pix_adj=NONE` or `RANDOMIZE`, respectively.